



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/699,799

11/04/2003

Kazuo Hiraguchi

Q77992

4014

23373 7590 10/03/2007
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

HAUGLAND, SCOTT J

ART UNIT

PAPER NUMBER

3654

MAIL DATE

DELIVERY MODE

10/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/699,799

Applicant(s)

HIRAGUCHI, KAZUO

Examiner

Scott Haugland

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/6/07 has been entered.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hancock et al (U.S. Pat. No. 6,764,037) in view of Rambosek (U.S. Pat. No. 6,628,479), LeNoue et al (U.S. Patent No. 5,328,123), and Maehara (U.S. Patent No. 4,466,585).

Hancock et al discloses a recording tape cartridge comprising a substantially rectangular case formed from an upper case and a lower case each having a wall 310, 320 connected to a ceiling or floor plate (upper or lower wall) 110, 120. The case

accommodates a single reel 210 on which recording tape is wound. An arc-shaped door 330 closes an opening for pulling out tape.

Hancock et al does not disclose arc-shaped guide walls for the arc-shaped door, border portions between the wall and the ceiling/floor plates that are thinner than the ceiling/floor plates, or screw bosses on the upper and lower cases each having a convex portion and a concave portion which fit together.

Rambosek teaches guiding a slidable door 31 of a recording tape cartridge between with guide walls 40, 14g, 50, 13g in an upper case and lower case of the recording tape cartridge.

LeNoue et al discloses a recording tape cartridge comprising a substantially rectangular case formed from an upper case and a lower case each having a wall 72 connected to a ceiling or floor plate (upper or lower wall). LeNoue et al teaches making border portions between the walls 72 and the ceiling/floor plates thinner than the ceiling and floor plates. The depth of the grooves 74 forming the thinner border portions are 30% to 50% of the thickness of the ceiling or floor plate (col. 4, lines 9-12).

Maehara teaches providing a recording tape cartridge with screw bosses 18, 20, 27, 29, 32, 34 having convex portions and concave portions that fit together.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the recording tape cartridge of Hancock et al with arc-shaped guide walls for the arc-shaped door as taught by Rambosek to provide lateral support for the door.

It would have been obvious to provide the recording tape cartridge of Hancock et al with border portions between the outermost peripheral walls and the ceiling/floor plates that are thinner than the ceiling/floor plates as taught by LeNoue et al to prevent deformation of the cartridge during cooling after molding.

It would have been obvious to provide the recording tape cartridge of Hancock et al with screw bosses having convex portions and concave portions that fit together as taught by Maehara to secure the upper and lower case together while ensuring proper alignment of the cases before insertion of the screws.

With regard to claims 2, 7-10, 12, and 17-20, the border portions disclosed by LeNoue et al would be 70% to 50% of the thickness of the ceiling or floor plates based on the disclosed groove depths of 30% to 50% of that thickness. Since the walls 72 are disclosed as being substantially the same thickness as the ceiling and floor plates, the ratio of groove depth/border depths to the thickness of the walls would be the same. It would have been obvious to make the thinner border portions 50% to 70% of the thickness of the peripheral walls as taught by LeNoue et al to provide adequate reduction of thickness to prevent deformation of the cartridge case.

Response to Arguments

Applicant's arguments filed 9/6/07 have been fully considered but they are not persuasive.

Applicant argues that LeNoue does not teach making border portions between a vertical wall and a ceiling or floor plate of a cartridge case thinner than the vertical walls

since LeNoue teaches that groove 74 extends into lower wall 48 for 30% or 50% of the thickness of the lower wall rather than the vertical wall. However, the LeNoue shows (Figs. 3-5) the lower and vertical walls to be substantially the same thickness. The thinned portion of the lower wall is, thus, thinner than the vertical wall, also.

In response to Applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the present application, LeNoue teaches making border portions (associated with grooves 74) between a vertical wall and a ceiling or floor plate of a cartridge case thinner than the vertical walls to prevent deformation of the cartridge case during cooling immediately after molding by eliminating excess wall thickness at intersections. It would have been clear that other wall intersections where thickening would be present such as the intersections between peripheral walls and the floor and ceiling plates would benefit from providing thinned portions to prevent deformation of the case in these areas.

Applicant argues that there is no teaching in the cited references of "arc-shaped guide walls located in an inner surface of the upper case and an inner surface of the lower case and which support an arc-shaped door between the inner surface of the

Art Unit: 3654

upper case and the inner surface of the lower case". However, Rambosek teaches providing guide walls on upper and lower cases for a sliding door of a recording tape cartridge. As would have been apparent to an ordinary artisan, it would have been necessary or highly desirable to provide guides for the door to constrain the door against lateral movement during opening and closing and to support it against being pushed in by external pressure. Providing guide walls on the upper and lower cases as taught by Rambosek would have been obvious for this purpose.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Esashi et al (U.S. Pat. No. 3,861,611) is cited to further show a tape cartridge having a sliding door.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Mon. - Fri., 10:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3654

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


sjh
9/24/07


Peter M. Cuomo
Supervisory Patent Examiner
Technology Center 3600